

ABSTRACT OF THE DISCLOSURE

An optical information recording/reproducing device reproduces digital data recorded in a form of interference fringes produced by two coherent beams in a hologram disk, by projecting a coherent beam to the hologram disk and receiving a reproduction signal beam obtained by diffraction by means of a two-dimensional photodetector array. The holographic optical information recording/reproducing device includes a tunable coherent light source that emits the coherent beam, and a control section controls and optimizes a wavelength of the tunable coherent light source according to position information of the reproduction signal beam on the two-dimensional photodetector array. Thus, a holographic optical information recording/reproducing device is provided that is capable of maintaining a sufficient reproduction signal intensity and reproducing signals stably while undergoing a minimum of cross-talk, even in the case where the optimal reproduction wavelength varies due to a variance of media, a change of a temperature of a recording medium, etc.